FCC DoC
TEST REPORT

for

DC-DC CONVERTER

Model: MU / MAU SERIES

Brand: DANUBE

Test Report Number:

91002404-D

Issued for

Danube Enterprise Co., Ltd.

A2, No. 255, Fengren Rd., Renwu Shiang, Kaohsiung County 814, Taiwan(R.O.C.)

Issued by

Compliance Certification Services Inc.

Tainan Laboratory

No. 8, Jiu Cheng Ling, Jiaokeng Village, Sinhua Township, Tainan Hsien 712, Taiwan R.O.C.
TEL: 886-6-580-2201

FAX: 886-6-580-2202

Issued Date: October 28, 2009

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REVISION HISTORY

Rev.		Issue Date		Revisions	Effect Page	Revised By
00		October 28, 2009		Initial Issue	ALL	Leah Peng

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1. TEST RESULT CERTIFICATION

Product:	DC-DC CONVERTER
Model:	MU / MAU SERIES
Brand Name:	DANUBE
Applicant:	Danube Enterprise Co., Ltd.
	A2, No. 255, Fengren Rd., Renwu Shiang, Kaohsiung County 814, Taiwan(R.O.C.)
Manufacture:	Danube Enterprise Co., Ltd.
	A2, No. 255, Fengren Rd., Renwu Shiang, Kaohsiung County 814, Taiwan(R.O.C.)
Tested:	October 13, 2009

EMISSION			
Standard	**Item**	**Result**	**Remarks**
FCC 47 CFR Part 15 Subpart B, ICES-003 Issue 4 ANSI C63.4 : 2003	Conducted (Main Port)	N/A	**No requirement for DC device**
	Radiated	PASS	Meet Class B limit

NOTE: 1. The statements of test result on the above are decided by the request of test standard only; the measurement uncertainties are not factored into this compliance determination.
2. The information of measurement uncertainty is available upon the customer's request.

Deviation from Applicable Standard
None

The above equipment has been tested by Compliance Certification Services Inc., and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Approved by:

Jeter Wu
Section Manager

Reviewed by:

Eric Huang
Assistant Section Manager

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2. EUT DESCRIPTION

Product	DC-DC CONVERTER
Model	MU / MAU SERIES
Brand Name	DANUBE
Applicant	Danube Enterprise Co., Ltd.
Manufacturer	Danube Enterprise Co., Ltd.
Housing material	Metal
EUT Type	☒ Engineering Sample. ☐ Product Sample. ☐ Mass Product Sample.
Serial Number	N/A
Received Date	October 2, 2009
Power Source	For model: **MAUD-0505LK** (I/P:5VDC, O/P:±5VDC, ±100mA) For model: **MAUD-4805LK**(I/P:48VDC, O/P:±5VDC, ±100mA) For model: **MUS-0505LK** (I/P: 5VDC, O/P:5VDC, 200mA) For model: **MUS-4805LK** (I/P: 48VDC, O/P:5VDC, 200mA) For model: **MUS-2405LK** (I/P: 24VDC, O/P:5VDC, 200mA) For model: **MAUS-2415LK** (I/P: 24VDC,O/P:15VDC, 67mA)

NOTE: Client consigns six model samples to test (Model Number: **MAUD-0505LK; MAUD-4805LK; MUS-0505LK; MUS-4805LK; MUS-2405LK; MAUS-2415LK**). Therefore, the testing Lab. just guarantees the unit, which has been tested.

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MU PARTNUMBES STRUCTURE

Model Name	Difference
MUS-x1x2(F)L(K) MUS-x1x2(F)L(K)-zzz	M= Series Name U= Unregulated S= Single output voltage x1= input voltage(05；12；15；24；48) x2= Output voltage(05；09；12；15；24) F= Fuse (Optional, if Suffix" F") L= Operating Temperature=-40 °C to +85 °C K= Isolation Voltage 3KVDC (Optional, if Suffix" K") zzz= 0~9，A~Z or blank for market purpose，

MAU PARTNUMBES STRUCTURE

Model Name	Difference
MAUv-x1x2(F)L(K) MAUv-x1x2(F)L(K)-zzz	MA=Series Name U=Unregulated v=Type of output voltage (S=single output or D=Dual output) x1=input voltage(05；12；15；24；48) x2=Output voltage(05；09；12；15；24；+/-5；+/-9；+/-12；+/-15；+/-24) F= Fuse (Optional, if Suffix" F") L= Operating Temperature=-40 °C to +85 °C K= Isolation Voltage 3KVDC (Optional, if Suffix" K") zzz= 0~9，A~Z or blank for market purpose，

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3. TEST METHODOLOGY

3.1 DECISION OF FINAL TEST MODE

The EUT was tested together with the above additional components, and a configuration, which produced the worst emission levels, was selected and recorded in this report.

The test configuration/ mode is as the following:

Test Mode

1. Full Load

Model Number:

(1) MAUD-0505LK
(2) MAUD-4805LK
(3) MUS-0505LK
(4) MUS-4805LK
(5) MUS-2405LK
(6) MAUS-2415LK

3.2 EUT SYSTEM OPERATION

1. Setup whole system for test as shown on setup diagram.
2. Turn on power and check function.
3. Start to test.

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4. SETUP OF EQUIPMENT UNDER TEST

4.1 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

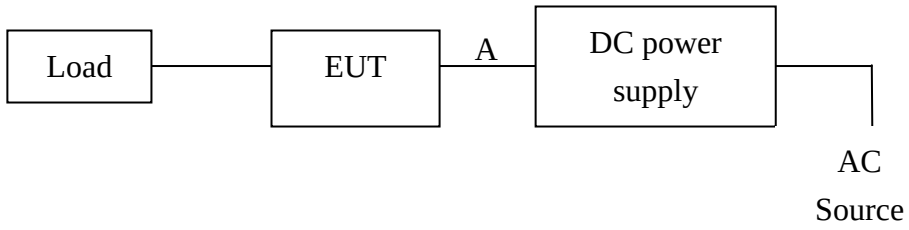
No.	Product	Manufacturer	Model No.	Certify No.	Signal cable
1	DC power supply	GW	GPC-6030P	DOC	Power cable, unshd, 1.6m

No.	Signal cable description	
A	DC Input cable	Shielded, 0.8m, 1pcs.

NOTE:

1) All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

4.2 CONFIGURATION OF SYSTEM UNDER TEST



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5. FACILITIES AND ACCREDITATIONS

5.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

No. 8, Jiu Cheng Ling, Jiaokeng Village,Sinhua Township, Tainan Hsien 712, Taiwan R.O.C.

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

1.1. ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC
Japan	VCCI
Canada	INDUSTRY CANADA
Taiwan	TAF, BSMI
Europe	TÜV NORD

Copies of granted accreditation certificates are available for downloading from our web site, http://www.ccsemc.com.tw

5.2 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Uncertainty
Conducted emissions	9kHz~30MHz	±2.05dB
Radiated emissions	30MHz ~ 1000MHz	±2.39dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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6. EMISSION TEST

6.1 CONDUCTED EMISSION MEASUREMENT

6.1.1 LIMITS

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

NOTE:
(1) The lower limit shall apply at the transition frequencies.
(2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
(3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

6.1.2 TEST INSTRUMENTS

Conducted Emission room #1				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
L.I.S.N.	SCHWARZBECK	NNLK 8121	8121-446	NOV. 19, 2009 For Insertion loss
	Rohde & Schwarz	ESH 3-Z5	840062/021	OCT. 05, 2010
TEST RECEIVER	Rohde & Schwarz	ESCS 30	100348	JUL. 02, 2010
BNC COAXIAL CABLE	CCS	BNC50	11	JAN. 14, 2010
Test S/W	e-3 (5.04211c) R&S (2.27)			

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

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6.1.3 TEST PROCEDURES

Procedure of Preliminary Test

- The EUT and Support equipment, if needed, was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 m is used and is placed on the ground plane as per ANSI C63.4 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor standing equipment, it is placed on the ground plane, which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.
- The test equipment EUT installed received DC main power, through a Line Impedance Stabilization Network (LISN), which supplied power source and was grounded to the ground plane.
- All support equipment power received from a second LISN.
- The EUT test program was started. Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.
- The Receiver scanned from 150kHz to 30MHz for emissions in each of the test modes.
- During the above scans, the emissions were maximized by cable manipulation.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test.
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The EUT configuration and cable configuration of the above highest emission levels were recorded for reference of the final test.

Procedure of Final Test

- EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.
- The test data of the worst-case condition(s) was recorded.

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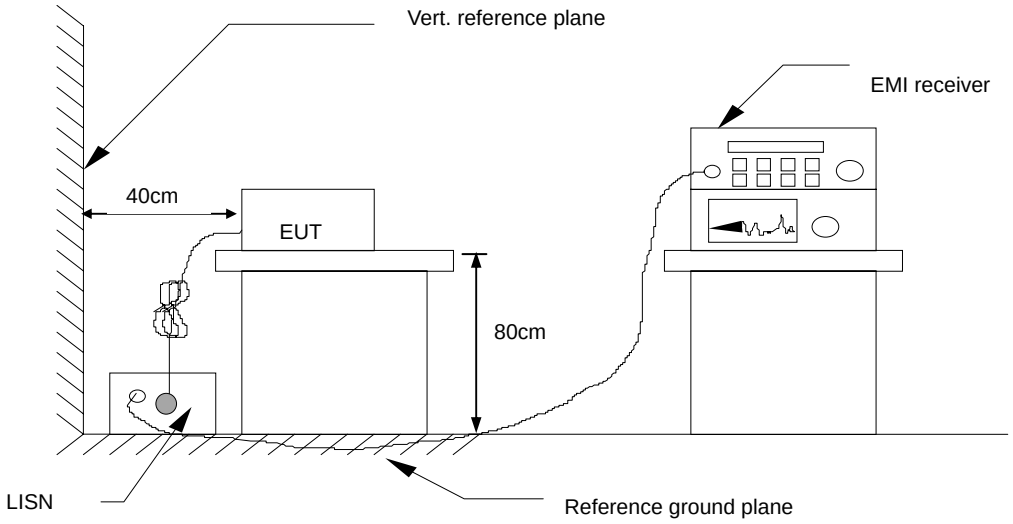
6.1.4 TEST SETUP



- For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

6.1.5 DATA SAMPLE

Freq. (MHz)	LISN Factor (dB)	Cable Loss (dB)	Meter Reading (dBuV)	Measured Level (dBuV)	Limits (dBuV)	Over Limits (dBuV)	Detector
x.xx	9.6	0.1	15.7	25.4	46	-20.6	QP

REMARKS： 1. Level (dBuV) = Read Level (dBuV) + LISN Factor (dB) + Cable Loss (dB)

2. Over Limit value (dB) = Level (dBuV) – Limit Line (dBuV)

6.1.6 TEST RESULTS

NOTE: This EUT has not connection to AC Source directly. No applicability for this test.

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6.2 LIMITS OF RADIATED EMISSION MEASUREMENT

FREQUENCY (MHz)	dBuV/m (At 10m)	
	Class A	Class B
30 ~ 230	40	30
230 ~ 1000	47	37

NOTE: (1) The lower limit shall apply at the transition frequencies.
(2) Emission level (dBuV/m) = 20 log Emission level (uV/m).

6.2.1 TEST INSTRUMENTS

Open Area Test Site # 5				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
TEST RECEIVER	Rohde & Schwarz	ESCS 30	100294	FEB. 05, 2010
TYPE N COAXIAL CABLE	SUHNER	CHA9513	5	AUG. 26, 2010
BILOG ANTENNA	Sunol sciences	JB1	A070506-1	SEP. 16, 2010
Test Software	EMI e-3 / AUDIX (5.04211c)			

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. N.C.R = No Calibration Request.

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6.2.2 TEST PROCEDURES

Procedure of Preliminary Test

- The equipment was set up as per the test configuration to simulate typical usage per the user's manual. When the EUT is a tabletop system, a wooden turntable with a height of 0.8 meters is used which is placed on the ground plane. When the EUT is a floor standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- Support equipment, if needed, was placed as per ANSI C63.4.
- All I/O cables were positioned to simulate typical usage as per ANSI C63.4.
- The EUT received DC power source from the outlet socket under the turntable. All support equipment power received from another socket under the turntable.
- Mains cables, telephone lines or other connections to auxiliary equipment located outside the test shall drape to the floor. No extension cords shall be used to mains receptacle.
- The antenna was placed at 10 m away from the EUT as stated in ANSI C63.4. The antenna connected to the Spectrum Analyzer via a cable and at times a pre-amplifier would be used.
- The Analyzer / Receiver quickly scanned from 30MHz to 1000MHz. The EUT test program was started. Emissions were scanned and measured rotating the EUT to 360 degrees and positioning the antenna 1 to 4 m above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- The test mode(s) described in Item 3.1 were scanned during the preliminary test:
- After the preliminary scan, we found the test mode described in Item 3.1 producing the highest emission level.
- The EUT and cable configuration, antenna position, polarization and turntable position of the above highest emission level were recorded for the final test.

Procedure of Final Test

- EUT and support equipment were set up on the turntable as per the configuration with highest emission level in the preliminary test.
- The Analyzer / Receiver scanned from 30MHz to 1000MHz. Emissions were scanned and measured rotating the EUT to 360 degrees, varying cable placement and positioning the antenna 1 to 4 m above the ground plane, in both the vertical and the horizontal polarization, to maximize the emission reading level.
- Recorded at least the six highest emissions. Emission frequency, amplitude, antenna position, polarization and turntable position were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit and only Q.P. reading is presented.
- The test data of the worst-case condition(s) was recorded.

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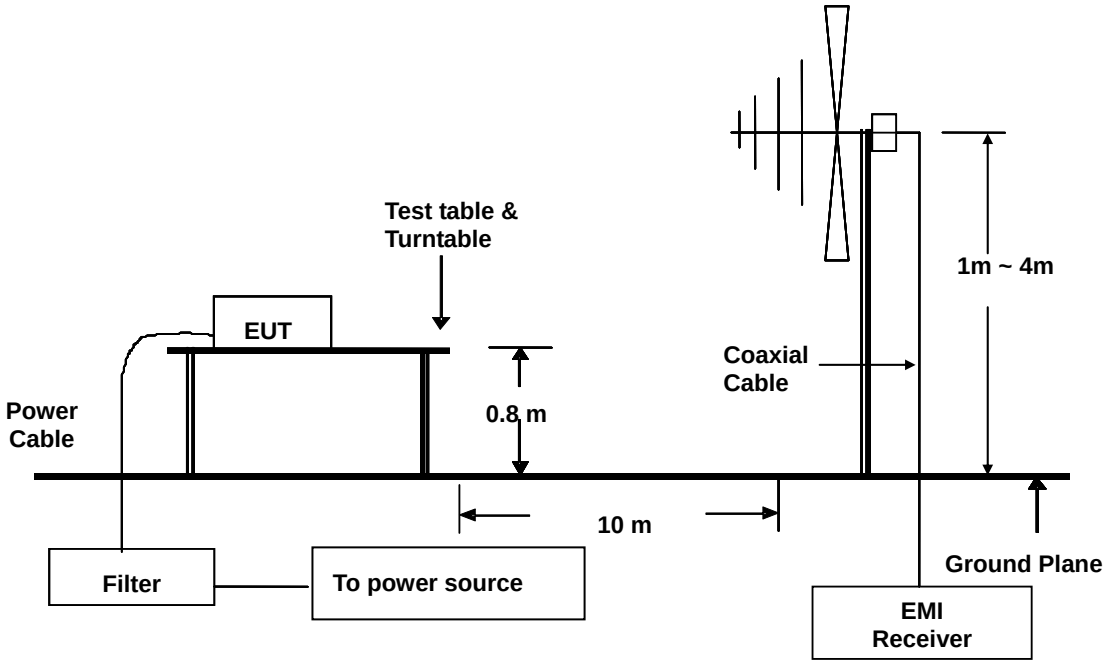
6.2.3 TEST SETUP



- For the actual test configuration, please rfer to the related item – Photographs of the Test Configuration.

6.2.4 DATA SAMPLE

Freq. (MHz)	Reading Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over Limit (dBuV/m)
xx.xx	14.00	12	0.2	26.2	30	-3.80

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

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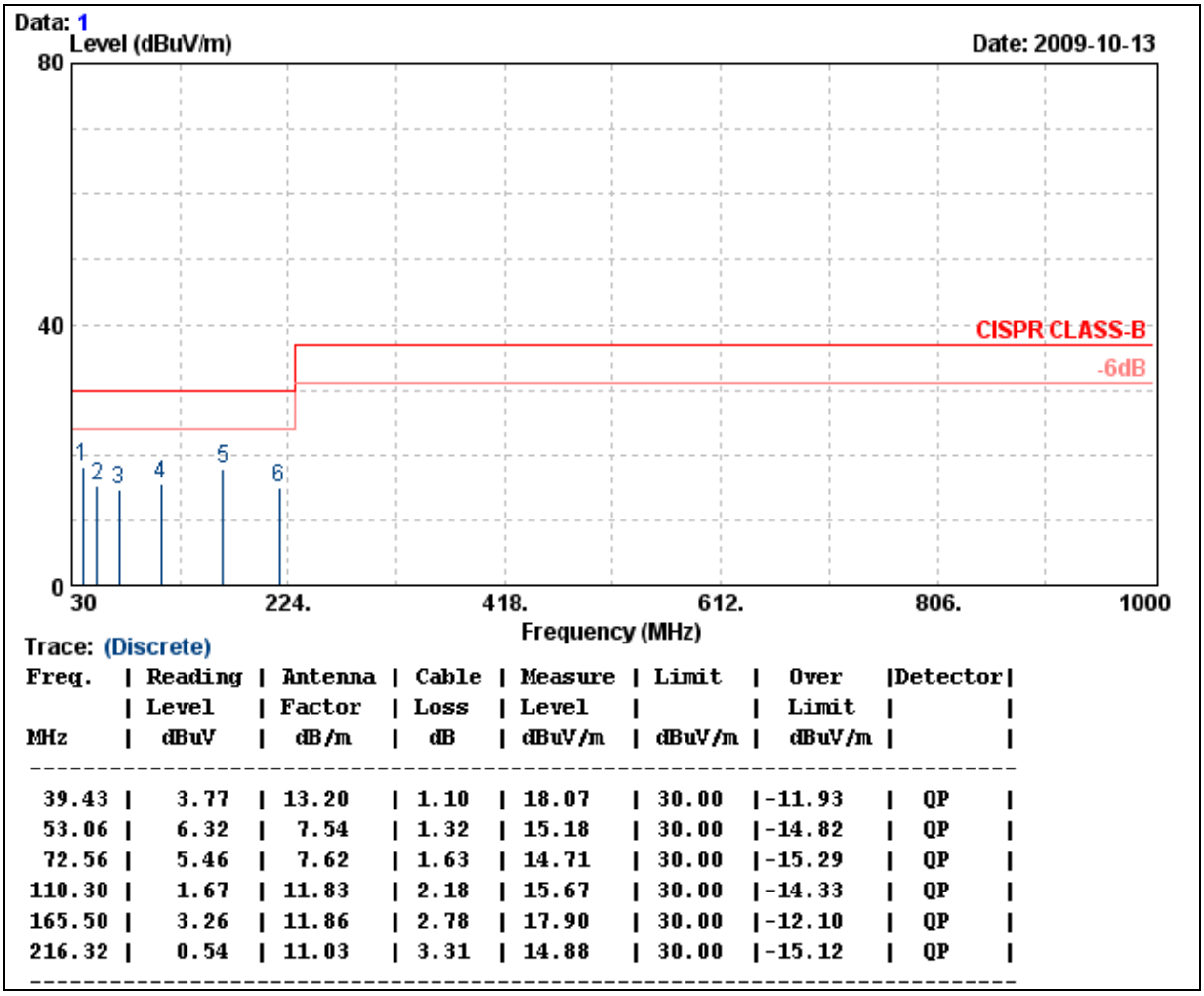
6.2.5 TEST RESULTS

Model No.	MAUD-0505LK	**Test Mode**	Full Load
Environmental Conditions	33.2℃, 50 % RH	**Resolution Bandwidth**	120 kHz
Antenna Pole	Vertical	**Antenna Distance**	10m
Detector Function	Quasi-peak.	**Tested by**	Rock Guo



Trace: (Discrete)

Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
39.43	3.77	13.20	1.10	18.07	30.00	-11.93	QP
53.06	6.32	7.54	1.32	15.18	30.00	-14.82	QP
72.56	5.46	7.62	1.63	14.71	30.00	-15.29	QP
110.30	1.67	11.83	2.18	15.67	30.00	-14.33	QP
165.50	3.26	11.86	2.78	17.90	30.00	-12.10	QP
216.32	0.54	11.03	3.31	14.88	30.00	-15.12	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

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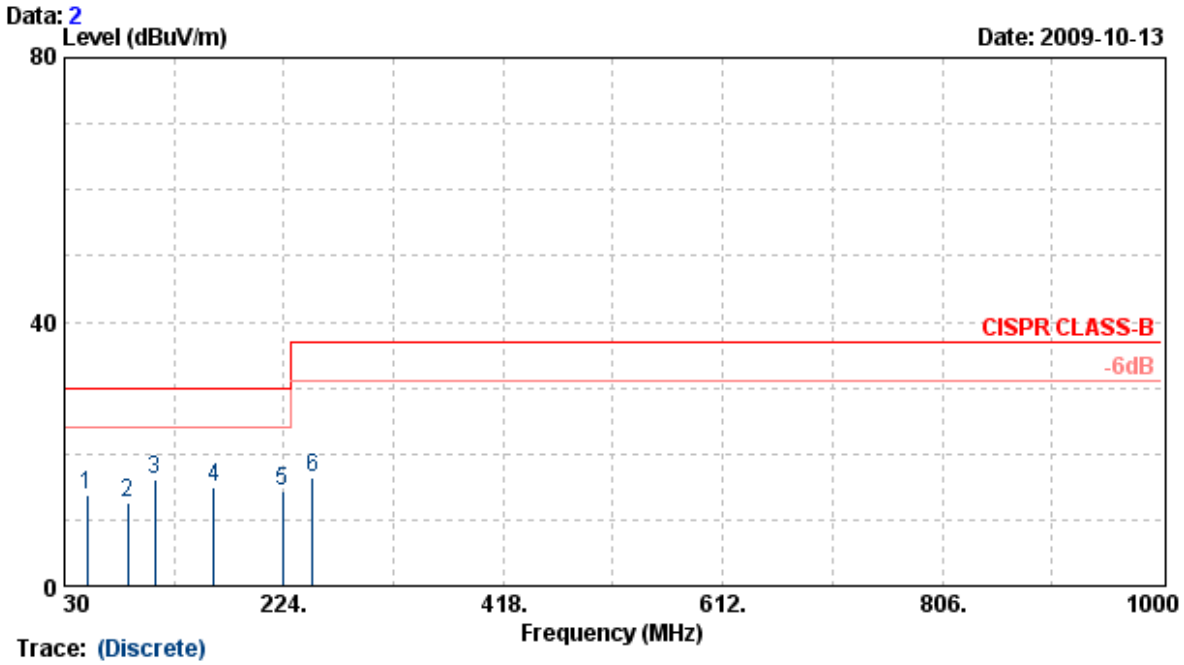
Model No.	MAUD-0505LK	**Test Mode**	Full Load
Environmental Conditions	33.2℃, 50 % RH	**Resolution Bandwidth**	120 kHz
Antenna Pole	Horizontal	**Antenna Distance**	10m
Detector Function	Quasi-peak.	**Tested by**	Rock Guo



Trace: (Discrete)

Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
49.88	4.60	7.99	1.26	13.85	30.00	-16.15	QP
86.40	3.25	7.55	1.84	12.64	30.00	-17.36	QP
109.56	2.16	11.66	2.17	15.99	30.00	-14.01	QP
162.28	0.15	12.07	2.74	14.96	30.00	-15.04	QP
223.30	0.21	10.74	3.38	14.32	30.00	-15.68	QP
249.74	1.12	11.76	3.64	16.52	37.00	-20.48	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

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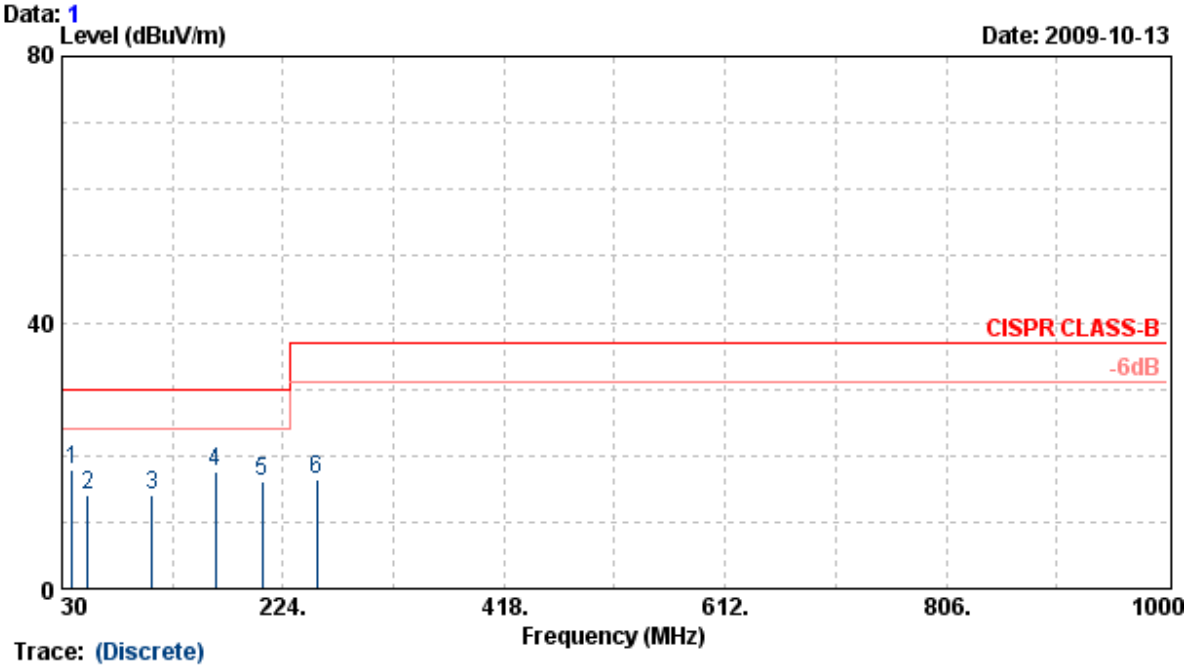
Model No.	MAUD-4805LK	Test Mode	Full Load
Environmental Conditions	33.2℃, 50 % RH	Resolution Bandwidth	120 kHz
Antenna Pole	Vertical	Antenna Distance	10m
Detector Function	Quasi-peak.	Tested by	Rock Guo



Trace: (Discrete)

Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
39.28	3.50	13.20	1.10	17.80	30.00	-12.20	QP
52.77	5.27	7.57	1.30	14.14	30.00	-15.86	QP
109.38	0.30	11.66	2.17	14.13	30.00	-15.87	QP
164.58	2.94	11.92	2.77	17.62	30.00	-12.38	QP
205.50	0.61	12.17	3.21	15.98	30.00	-14.02	QP
253.30	0.77	11.84	3.67	16.28	37.00	-20.72	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

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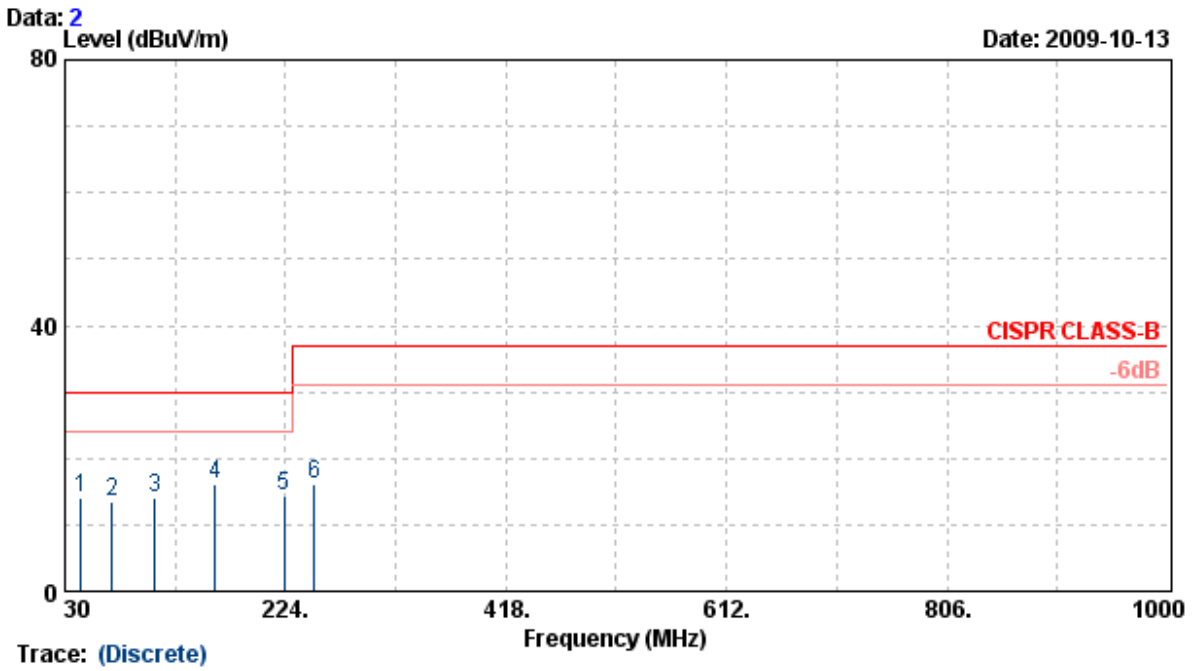
Model No.	MAUD-4805LK	Test Mode	Full Load
Environmental Conditions	33.2℃, 50 % RH	Resolution Bandwidth	120 kHz
Antenna Pole	Horizontal	Antenna Distance	10m
Detector Function	Quasi-peak.	Tested by	Rock Guo



Trace: (Discrete)

Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
44.25	3.12	9.79	1.18	14.09	30.00	-15.91	QP
71.57	4.20	7.65	1.61	13.46	30.00	-16.54	QP
109.45	0.31	11.66	2.17	14.14	30.00	-15.86	QP
162.38	1.29	12.07	2.74	16.10	30.00	-13.90	QP
223.20	0.22	10.74	3.38	14.33	30.00	-15.67	QP
249.80	0.61	11.76	3.64	16.01	37.00	-20.99	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

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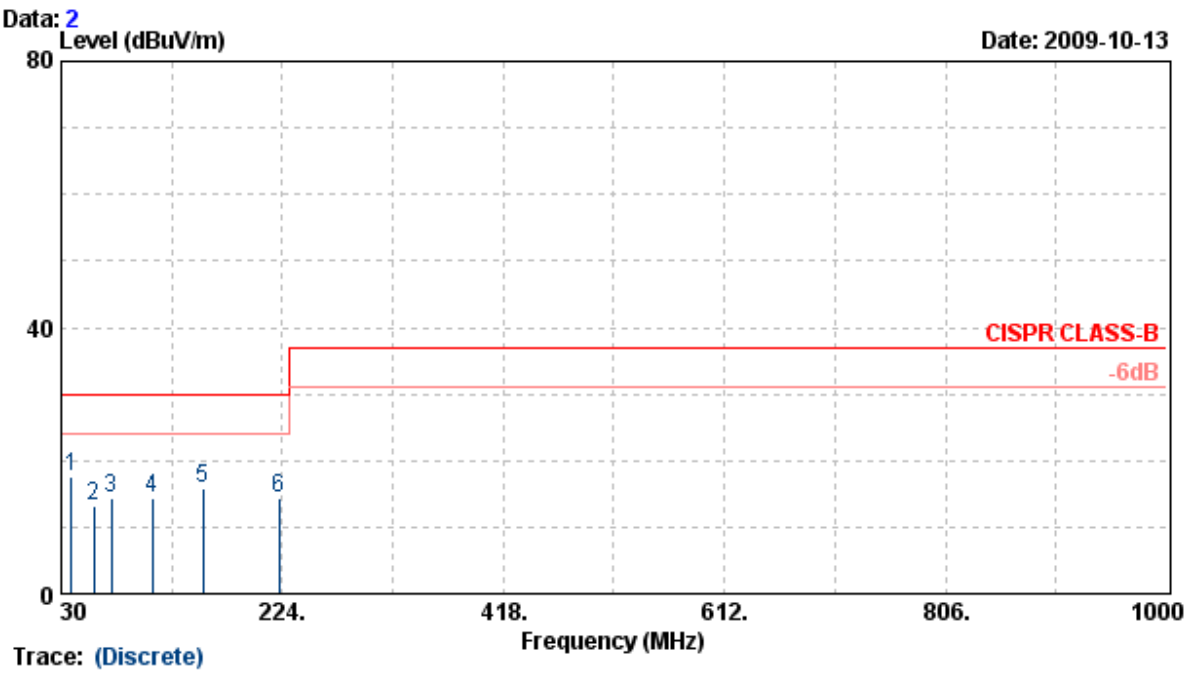
Model No.	MUS-0505LK	**Test Mode**	Full Load
Environmental Conditions	33.2℃, 50 % RH	**Resolution Bandwidth**	120 kHz
Antenna Pole	Vertical	**Antenna Distance**	10m
Detector Function	Quasi-peak.	**Tested by**	Rock Guo



Trace: (Discrete)

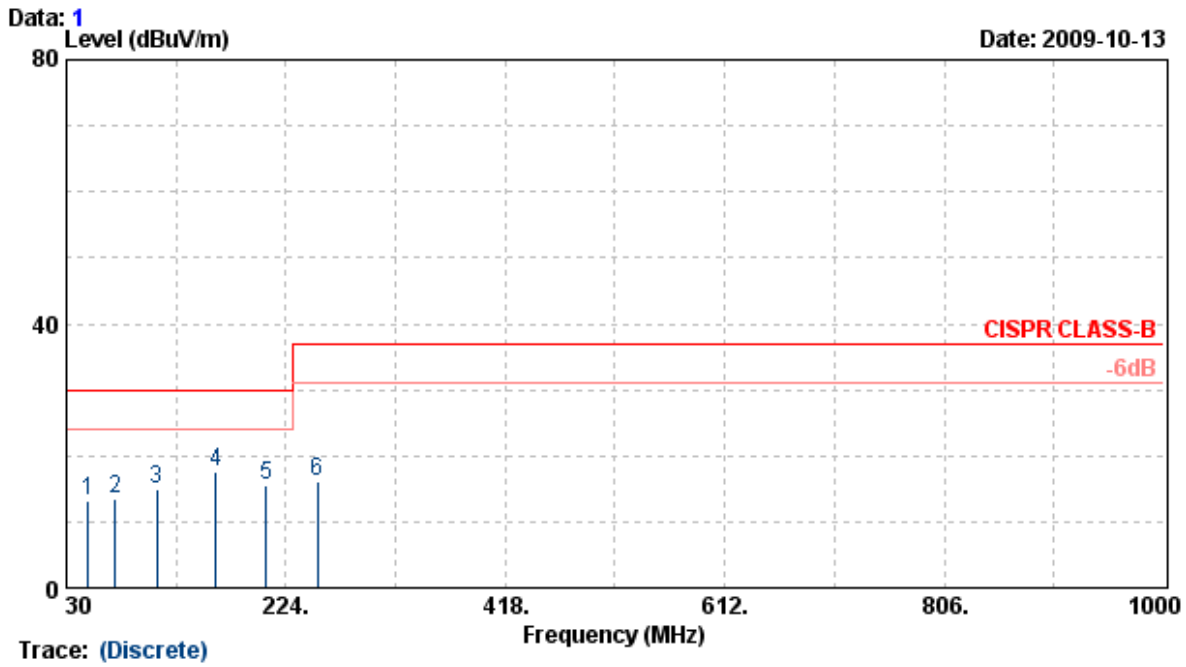
Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
39.28	3.20	13.20	1.10	17.50	30.00	-12.50	QP
58.59	4.45	7.39	1.40	13.24	30.00	-16.76	QP
74.00	5.11	7.59	1.64	14.35	30.00	-15.65	QP
110.00	0.58	11.66	2.17	14.41	30.00	-15.59	QP
154.85	0.70	12.35	2.66	15.71	30.00	-14.29	QP
221.50	0.29	10.65	3.36	14.30	30.00	-15.70	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Model No.	MUS-0505LK	Test Mode	Full Load
Environmental Conditions	33.2℃, 50 % RH	Resolution Bandwidth	120 kHz
Antenna Pole	Horizontal	Antenna Distance	10m
Detector Function	Quasi-peak.	Tested by	Rock Guo



Trace: (Discrete)

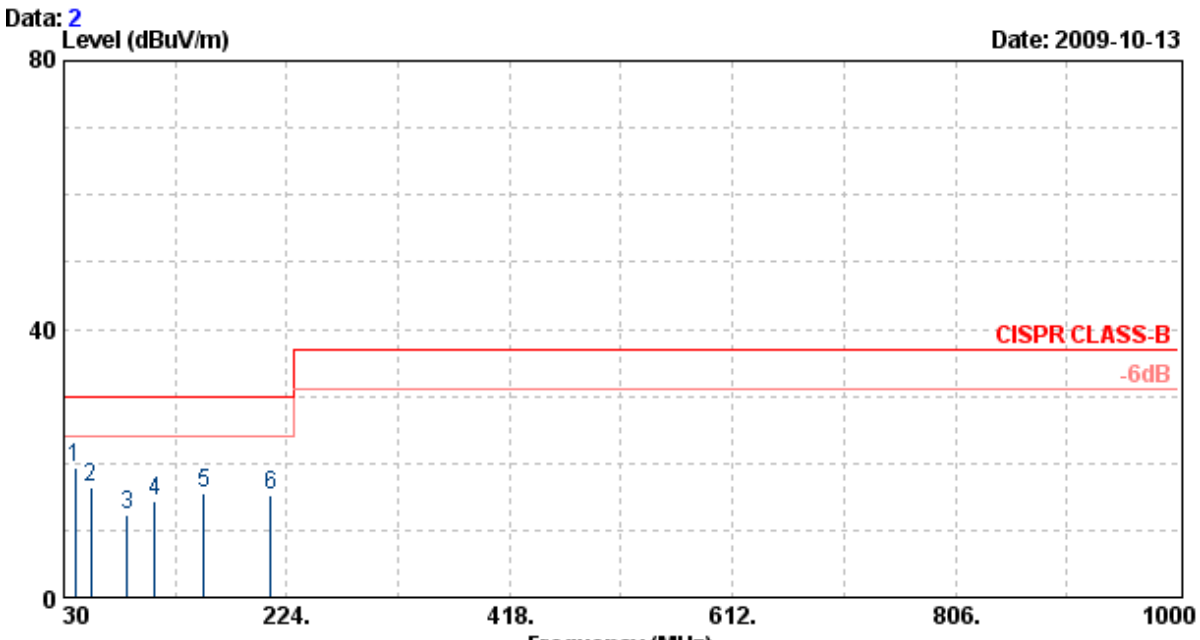
Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
49.58	3.87	7.99	1.26	13.12	30.00	-16.88	QP
73.21	4.10	7.59	1.64	13.34	30.00	-16.66	QP
109.61	1.01	11.66	2.17	14.84	30.00	-15.16	QP
161.94	2.68	12.07	2.74	17.49	30.00	-12.51	QP
206.33	0.33	12.06	3.22	15.61	30.00	-14.39	QP
251.70	0.56	11.81	3.66	16.03	37.00	-20.97	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Model No.	MUS-4805LK	Test Mode	Full Load
Environmental Conditions	33.2℃, 50 % RH	Resolution Bandwidth	120 kHz
Antenna Pole	Vertical	Antenna Distance	10m
Detector Function	Quasi-peak.	Tested by	Rock Guo



Trace: (Discrete)

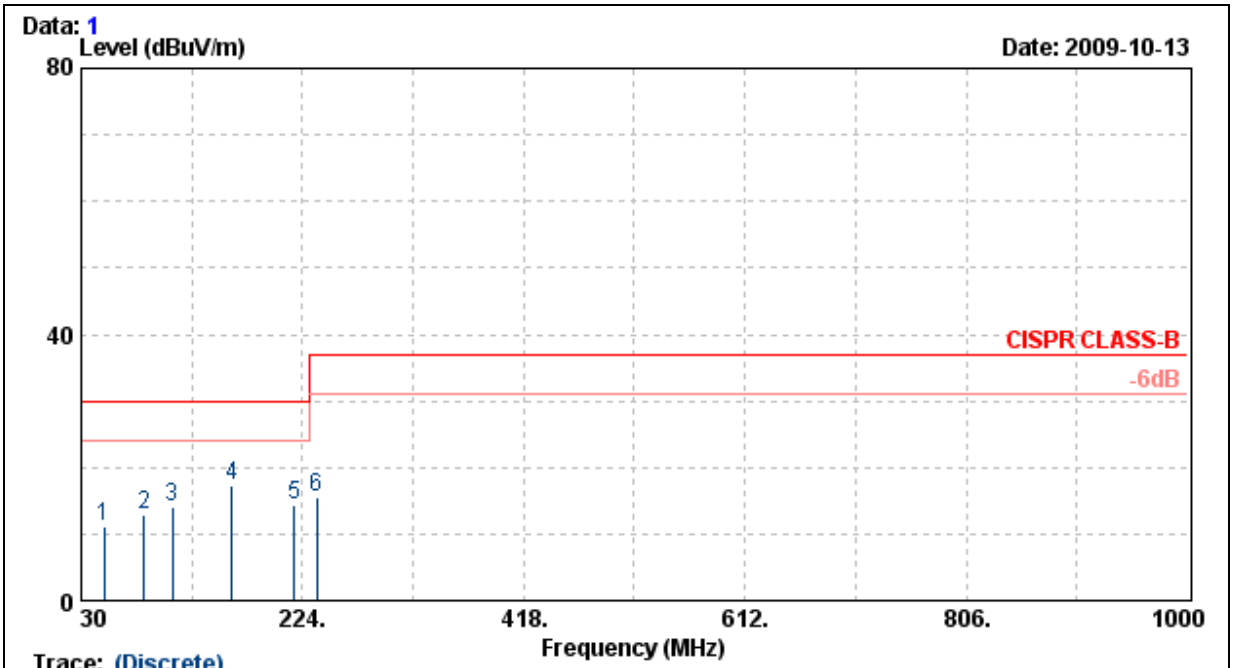
Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
39.57	4.98	13.20	1.10	19.28	30.00	-10.72	QP
53.49	7.57	7.54	1.32	16.43	30.00	-13.57	QP
85.51	2.93	7.52	1.83	12.28	30.00	-17.72	QP
109.20	0.54	11.66	2.17	14.37	30.00	-15.63	QP
151.77	0.37	12.45	2.63	15.46	30.00	-14.54	QP
210.30	0.26	11.65	3.25	15.16	30.00	-14.84	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Model No.	MUS-4805LK	Test Mode	Full Load
Environmental Conditions	33.2℃, 50 % RH	Resolution Bandwidth	120 kHz
Antenna Pole	Horizontal	Antenna Distance	10m
Detector Function	Quasi-peak.	Tested by	Rock Guo



Trace: (Discrete)

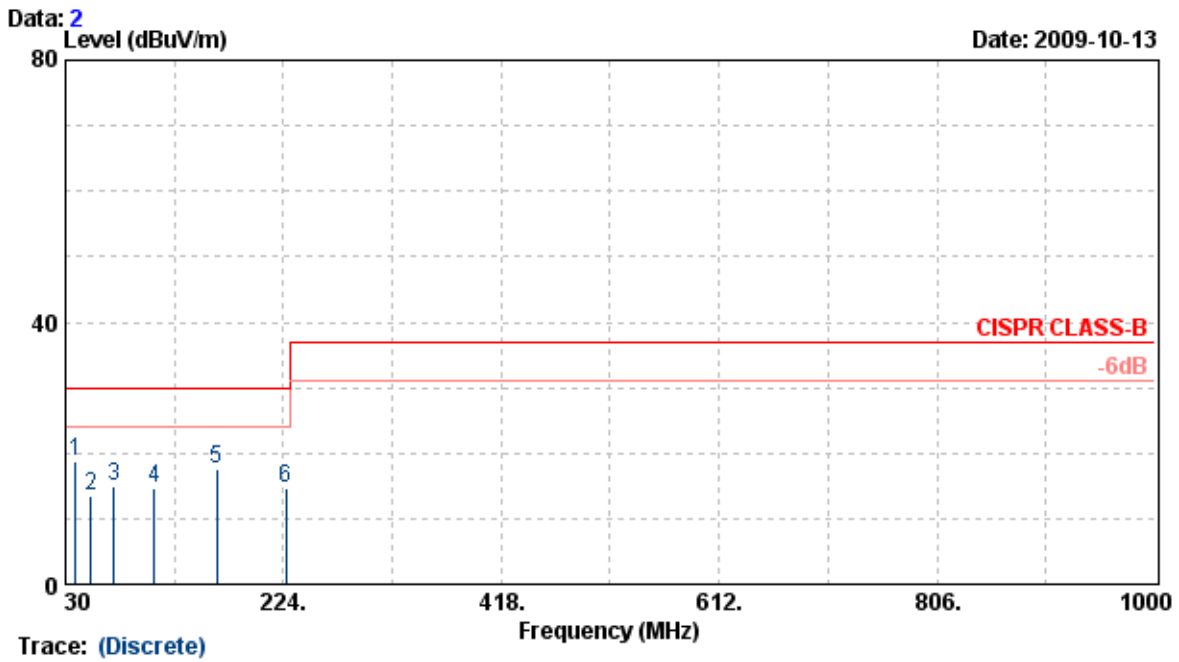
Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
50.30	2.36	7.63	1.27	11.26	30.00	-18.74	QP
85.51	3.40	7.52	1.83	12.75	30.00	-17.25	QP
109.75	0.23	11.66	2.17	14.06	30.00	-15.94	QP
162.07	2.52	12.07	2.74	17.33	30.00	-12.67	QP
217.20	0.23	10.92	3.32	14.47	30.00	-15.53	QP
236.50	0.78	11.33	3.51	15.62	37.00	-21.38	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

This report shall not be reproduced except in full, without the written approval of Compliance Certification Services.

Model No.	MUS-2405LK	Test Mode	Full Load
Environmental Conditions	33.2℃, 50 % RH	Resolution Bandwidth	120 kHz
Antenna Pole	Vertical	Antenna Distance	10m
Detector Function	Quasi-peak.	Tested by	Rock Guo



Trace: (Discrete)

Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
39.19	3.69	13.94	1.09	18.72	30.00	-11.28	QP
52.33	4.66	7.57	1.30	13.53	30.00	-16.47	QP
72.78	5.72	7.62	1.63	14.97	30.00	-15.03	QP
109.38	0.78	11.66	2.17	14.61	30.00	-15.39	QP
164.58	2.84	11.92	2.77	17.52	30.00	-12.48	QP
226.50	0.39	10.91	3.41	14.71	30.00	-15.29	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

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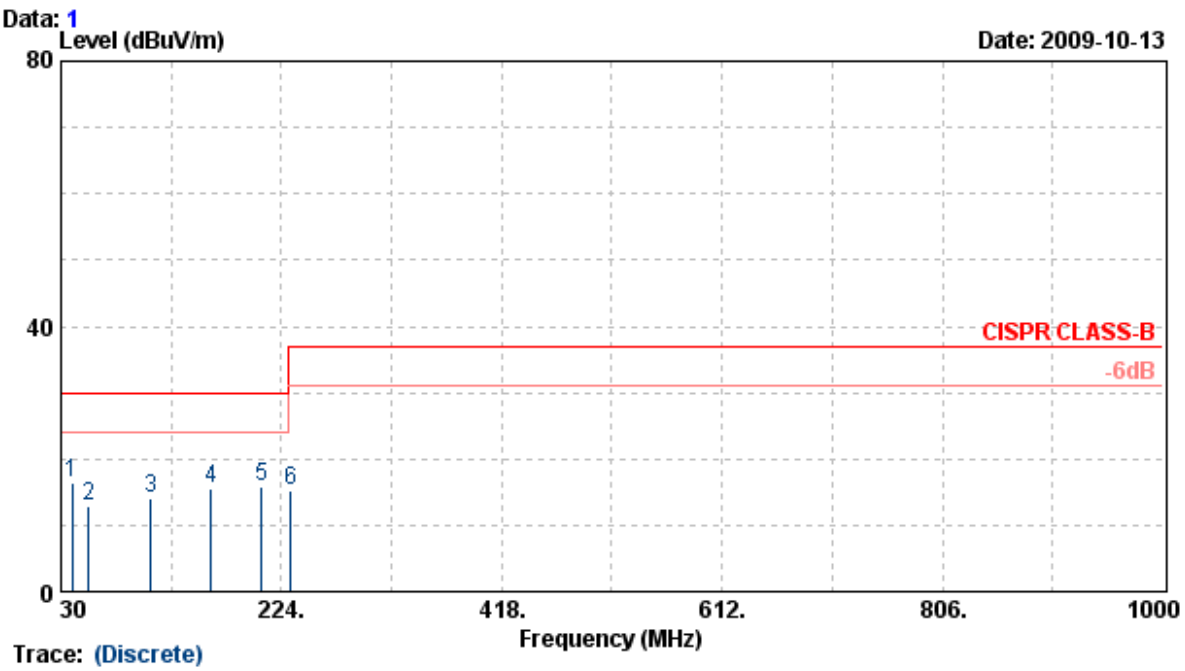
Model No.	MUS-2405LK	Test Mode	Full Load
Environmental Conditions	33.2℃, 50 % RH	Resolution Bandwidth	120 kHz
Antenna Pole	Horizontal	Antenna Distance	10m
Detector Function	Quasi-peak.	Tested by	Rock Guo



Trace: (Discrete)

Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
39.85	2.10	13.20	1.10	16.40	30.00	-13.60	QP
53.98	4.10	7.51	1.34	12.95	30.00	-17.05	QP
109.33	0.33	11.66	2.17	14.16	30.00	-15.84	QP
162.00	0.78	12.07	2.74	15.59	30.00	-14.41	QP
206.30	0.44	12.06	3.22	15.72	30.00	-14.28	QP
232.36	0.67	11.16	3.47	15.30	37.00	-21.70	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

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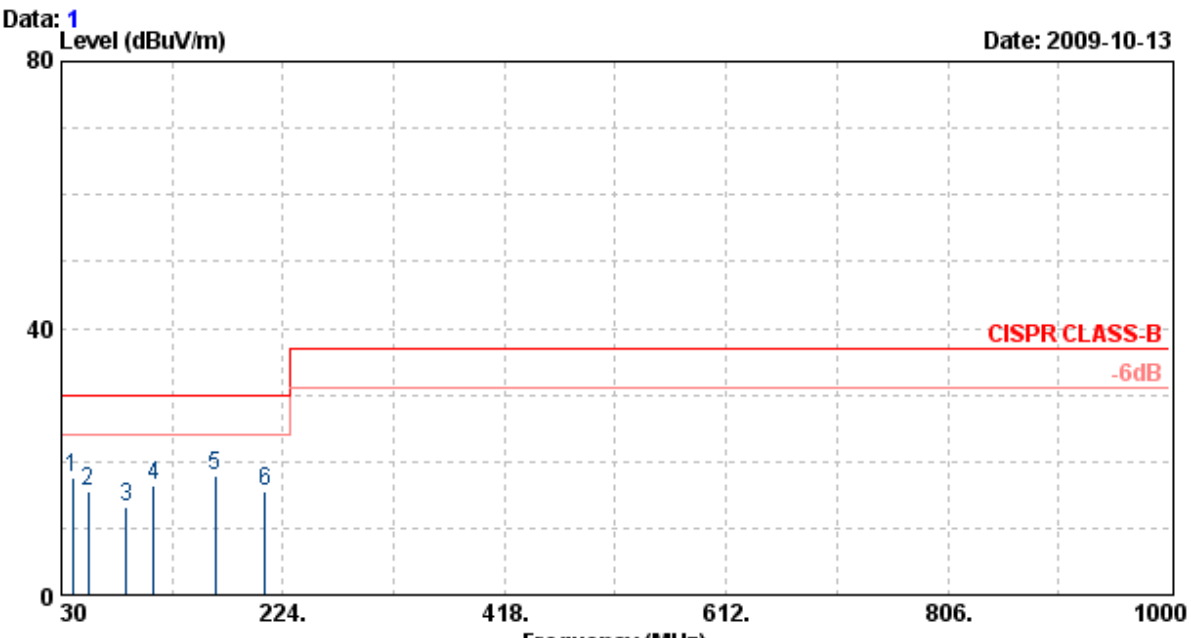
Model No.	MAUS-2415LK	Test Mode	Full Load
Environmental Conditions	33.2℃, 50 % RH	Resolution Bandwidth	120 kHz
Antenna Pole	Vertical	Antenna Distance	10m
Detector Function	Quasi-peak.	Tested by	Rock Guo



Trace: (Discrete)

Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
39.86	3.36	13.20	1.10	17.66	30.00	-12.34	QP
53.78	6.72	7.51	1.34	15.57	30.00	-14.43	QP
86.55	3.89	7.55	1.84	13.28	30.00	-16.72	QP
110.83	2.30	11.83	2.18	16.30	30.00	-13.70	QP
165.04	3.16	11.92	2.77	17.84	30.00	-12.16	QP
208.31	0.31	11.86	3.23	15.40	30.00	-14.60	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

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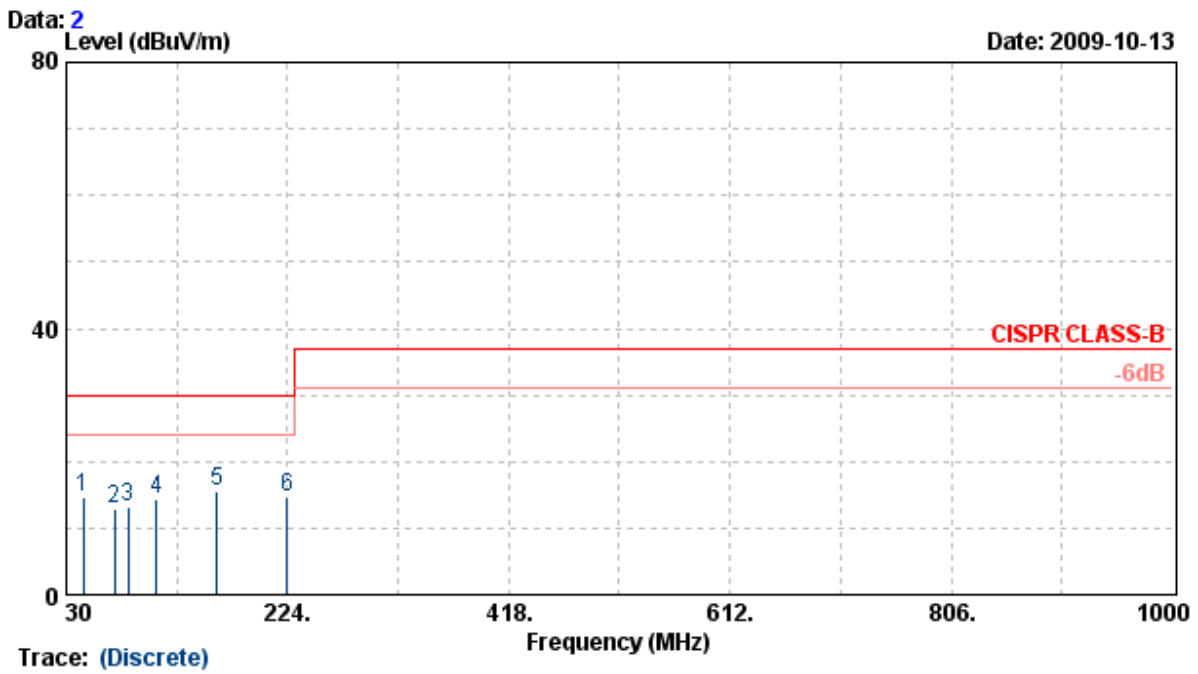
Model No.	MAUS-2415LK	**Test Mode**	Full Load
Environmental Conditions	33.2℃, 50 % RH	**Resolution Bandwidth**	120 kHz
Antenna Pole	Horizontal	**Antenna Distance**	10m
Detector Function	Quasi-peak.	**Tested by**	Rock Guo



Trace: (Discrete)

Freq. MHz	Reading Level dBuV	Antenna Factor dB/m	Cable Loss dB	Measure Level dBuV/m	Limit dBuV/m	Over Limit dBuV/m	Detector
45.26	4.10	9.43	1.20	14.73	30.00	-15.27	QP
72.25	3.61	7.62	1.63	12.86	30.00	-17.14	QP
84.55	3.90	7.49	1.81	13.21	30.00	-16.79	QP
109.33	0.44	11.66	2.17	14.27	30.00	-15.73	QP
162.00	0.72	12.07	2.74	15.53	30.00	-14.47	QP
223.34	0.51	10.74	3.38	14.62	30.00	-15.38	QP

REMARKS： 1.Level (dBuV/m) = Read Level (dBuV) + Antenna Factor (dB/m) + Cable loss (dB)

2.Over Limit value (dB) = Level (dBuV/m)-Limit Line(dBuV/m)

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7 PHOTOGRAPHS OF THE TEST CONFIGURATION

RADIATED EMISSION TEST

END OF REPORT

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